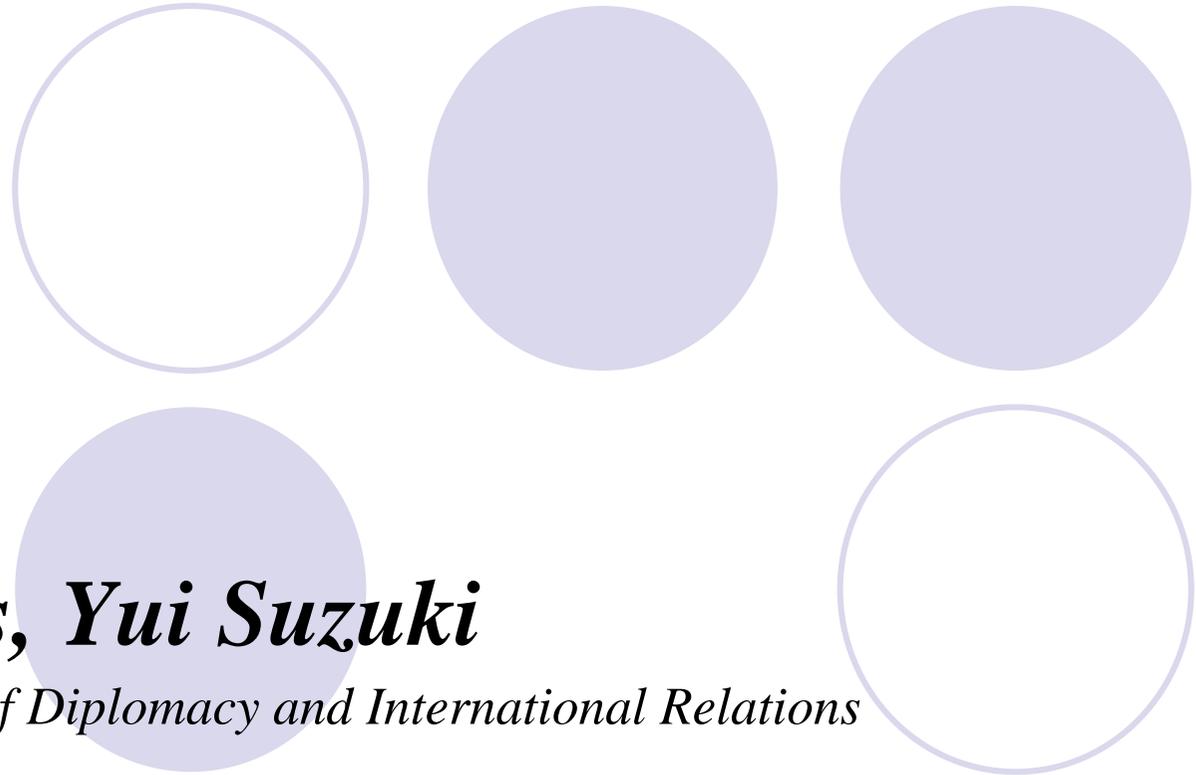


# Business Cycle and Corruption



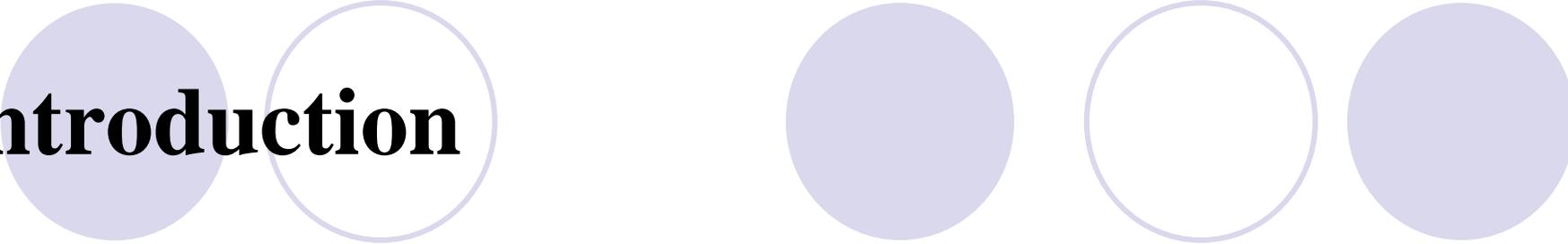
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# Introduction

## - Permanent income and corruption

- the higher the income level, the lower the corruption (e.g., La Porta *et al*, 1999; Mauro, 1995; Shleifer and Vishny, 1993; Treisman, 2000)

## - Transitory income and corruption

- ???

# Transitory income and corruption

*Galbraith ( The Great Crash 1929, p.133)*

*"At any given time there exists an inventory of undiscovered embezzlement in — or more precisely not in — the country's businesses and banks. This inventory — it should perhaps be called the bezzle — amounts at any moment to many millions of dollars. It also varies in size with the business cycle. In good times, people are relaxed, trusting, and money is plentiful. But even though money is plentiful, there are always many people who need more. Under these circumstances the rate of embezzlement grows, the rate of discovery falls off, and the bezzle increases rapidly. In depression all this is reversed. Money is watched with a narrow, suspicious eye. The man who handles it is assumed to be dishonest until he proves himself otherwise. Audits are penetrating and meticulous. Commercial morality is enormously improved. The bezzle shrinks."*

# Model (*a la Méltz and Zumer (2002)*)

$$\text{CORRUPT}_{i,t} = \beta_0 + \beta_1 \overline{\text{INCOME}}_i + \beta_2 (\text{INCOME}_{i,t} - \overline{\text{INCOME}}_i) + \varepsilon_{i,t}, \quad (1)$$

where

$$\text{CORRUPT}_{i,t} = (\text{CORRUPT}_i / \text{CORRUPT}_{\text{AVE}})_t;$$

$$\text{INCOME}_{i,t} = (\text{GDP}_i / \text{GDP}_{\text{AVE}})_t,$$

$\overline{\text{INCOME}}_i$ , (average income) reflects the level of permanent income at country  $i$  relative

to other countries in the sample,

$(\text{INCOME}_{i,t} - \overline{\text{INCOME}}_i)$ , (deviation from the average income) reflects transitory income

# Model (*a' la Mélicitz and Zumer (2002)*) ...

Equation 1 can be decomposed into the following two parts:

$$\overline{\text{CORRUPT}}_i = \beta_0 + \beta_1 \overline{\text{INCOME}}_i + \eta_i \quad (2)$$

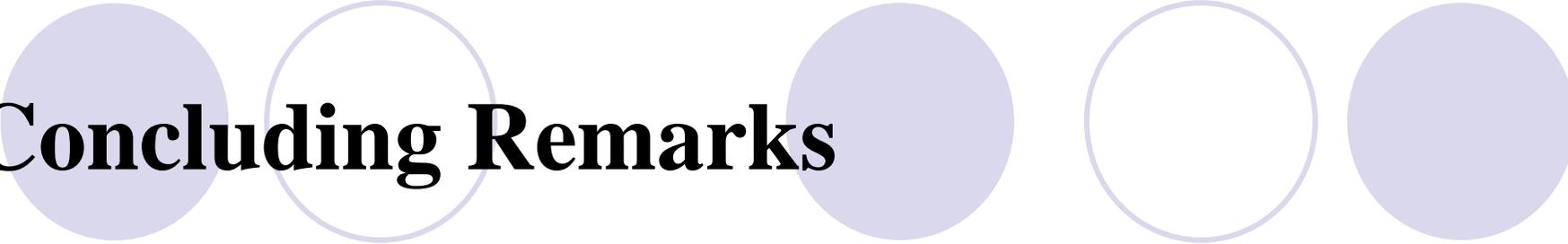
$$\text{CORRUPT}_{i,t} - \overline{\text{CORRUPT}}_i = \beta_2 (\text{INCOME}_{i,t} - \overline{\text{INCOME}}_i) + \mu_{i,t}, \quad (3)$$

Also, Equation (3) could be re-formulated as:

$$\text{CORRUPT}_{i,t} - \overline{\text{CORRUPT}}_i = \sum_{j=0}^L \beta_{2,t-j} (\text{INCOME}_{i,t-j} - \overline{\text{INCOME}}_i) + \vartheta_{i,t}, \quad (4)$$

# Estimation Results

Column (1)	Equation (2)		Equation (3)		Equation (4)
	(2)	(3)	(4)	(5)	(6)
Independent Variable (Coefficient)	OLS	IV (2SLS)	OLS	GMM-IV	GMM-IV
Constant ( $\beta_0$ )	0.56 <sup>***</sup> (0.06)	0.45 <sup>***</sup> (0.09)			
Permanent income ( $\beta_1$ )	0.44 <sup>***</sup> (0.05)	0.55 <sup>***</sup> (0.08)			
Transitory income ( $\beta_2$ )			-0.15 <sup>***</sup> (0.06)	-0.10 <sup>**</sup> (0.05)	-0.09
Transitory income ( $\beta_{2,t}$ )					-0.05 (0.10)
Transitory income ( $\beta_{2,t-1}$ )					-0.04 (0.11)
Number of observations	39	39	507	507	507
Adjusted R <sup>2</sup>	0.66	0.62	0.01		
Degrees of freedom	37	37	506	21	43



# Concluding Remarks

## **Main finding:**

Corruption expands in good times and shrinks in bad times.

## **Policy implication:**

In good times regulators need to pro-actively take precautionary measures and apply meticulous audits.